Algebra 2
Unit #1
WS #9

CLASS EXERCISES

Solve and check.

1. $14y - 3 = 25$
2. $3x - 4 + 8x + 3 = 32$
3. $8z + 12 = 5z - 21$
4. $6(t - 2) = 2(9 - 2t)$
5. $12 - 3(2w + 1) = 7w - 3(7 + w)$
6. $3(x + 2) = 2(2x - 1) - 12$
7. $6(x - 3) - 2(7 - x) = 8$
8. $7x - 6(11 - 2x) = 10$
9. $10x - 7 = 2(13 + 5x)$
10. $8x - 3(6 + x) = 5x + 4$

PRACTICE EXERCISES

Solve and check.

1. $4.2x + 6.4 = 40$
2. $6.5y + 3.5 = 49$
3. $2(y - 3) + 6 = 70$
4. $4(x + 2) - 8 = 80$
5. $2t - 3 = 9 - 4t$
6. $7w + 2 = 3w + 94$
7. $6g - (3 - 3g) = 24$
8. $4w - 2(1 - w) = -38$
9. $2(x + 3) - 2(x + 4) = 24$
10. $5(x - 2) - 4(x + 1) = 50$
11. $5x + \frac{1}{3} = 2x - \frac{3}{2}$
12. $4y - \frac{1}{10} = 3y + \frac{4}{5}$
13. $3(m - 2) - 5 = 8 - 2(m - 4)$
14. $7(a + 1) - 3a = 5 + 4(a - 1)$

Solve and check. Name the subset(s) of the real numbers to which each solution belongs.

15. $\frac{k}{3} + \frac{k}{6} = \frac{7}{2}$
16. $\frac{s}{4} + \frac{s}{2} + \frac{s}{3} = 13$
17. $2(3w + 2) - 12 = 3w - 11$
18. $3(8w - 2) = 46 - 2(12w + 1)$
19. $6x - 3(6 - 5x) + 3x = 10 - 4(2 - x)$
20. $\frac{1}{2}(6 + 4x) - \frac{1}{4}(8x - 12) = \frac{1}{2}(2x - 4)$
21. $5y - [7 - (2y - 1)] = 3(y - 5) + 4(y + 3)$
22. $3x + 1 + 2(1 + 2x^2) = 5(1 - x) + 4(x^2 + 1)$

Use the definition of absolute value to solve each equation.

23. $|x + 4| = 8$
24. $|x - 5| = 23$
25. $|2x - 7| = 3$
26. $2|x + 6| = 48$